

## ABSTRACT

A method using an algorithm to enhance the differences in the luminance values of three primary color and the corresponding standard deviations, which become precise bases for category determination of unknown media. Caused by the coarseness and the colors on the surfaces of different media, these differences under visible light are easily collected by scanning modules. The method scans the unknown medium to obtain the luminance values of three primary colors, calculates the corresponding standard deviations of all luminance values of the unknown medium, enhances the differences among the luminance values and standard deviations among the unknown medium and multiple known media by an algorithm, and finally determines the category of the unknown medium as the category of one known medium.